



Supercomputers for LIGO and IceCube Nobel-Physics Prize-Winning Projects Developed by Nor-Tech



Nor-Tech supplies high performance technology to 2 Nobel Physics Prize-Winning projects—one is the Laser Interferometer Gravitational-Wave Observatory (LIGO).

MINNEAPOLIS, MINN., U.S., March 27, 2019 **Nor-Tech** has been supplying high performance technology to two recent Nobel Physics Prize-Winning projects—one is the Laser Interferometer Gravitational-Wave Observatory (LIGO). Project officials just announced that their detectors are about to come online after a one-year shutdown for hardware upgrades.

In preparation for this, LIGO Consortium member University of Wisconsin-Milwaukee (UWM) upgraded their clusters with Nor-Tech hardware to assist with the computing demands. At UWM they design, build and maintain computational tools, such as Nor-Tech's supercomputer, that handle LIGO's massive amounts of data. Nor-Tech completed the most recent update—including Intel Skylake processors—in 2018. The new Skylake-equipped technology is proving to be almost 10 times faster.

Nor-Tech Executive Vice President Jeff Olson said, "We are excited about the amazing discoveries these enhanced detectors will reveal. This is an energizing time for all of us at Nor-Tech—knowing that the HPC solutions we are developing for two Nobel projects truly are changing our view of the world."

LIGO was awarded a Nobel Prize in 2017. Prior to this, at a Feb. 11, 2016 national media conference, National Science Foundation (NSF) researchers announced the first direct observation of a gravitational wave. This was a paradigm-shifting achievement in the science community. Subsequent gravitational wave detections have confirmed those results.

In 2018, the LIGO team announced the first visible detection of a neutrino event. This was made possible, in part, by the powerful HPC technology Nor-Tech has been providing to multiple LIGO Consortium institutions since 2005.

The first Nor-Tech client to win a Nobel Prize in Physics was the IceCube research team, headquartered at the University of Wisconsin-Madison. IceCube is designed specifically to identify neutrinos from space. It's a cubic kilometer of ice, laced with photo-detectors, located at a dedicated Antarctic research facility.

Nor-Tech has been working with several of the world's leading research institutions involved with the IceCube project for more than 10 years; designing, building, and upgrading HPC technology that made exciting neutrino discoveries possible.

Nor-Tech is on CRN's list of the top 40 Data Center Infrastructure Providers along with IBM, Oracle, Dell, and Supermicro and is also a member of MIT Technology Review's Global Advisory Panel. Nor-Tech engineers average 20+ years of experience. This strong industry reputation and deep partner relationships also enable the company to be a leading supplier of cost-effective Lenovo desktops, laptops, tablets and Chromebooks to schools and enterprises. All of Nor-Tech's high performance technology is developed by Nor-Tech in Minnesota and supported by Nor-Tech around the world. The company is headquartered in Burnsville, Minn. just outside of Minneapolis. Nor-Tech holds the following contracts: GSA, University of Wisconsin System, NASA SEWP V. To contact Nor-Tech call 952-808-1000/toll free: 877-808-1010 or visit <https://www.nor-tech.com>. Full release at: <https://www.nor-tech.com/category/news/>. For media inquiries, contact Jeanna Van Rensselaar at **Smart PR Communications**; jeanna@smartprcommunications.com 630-363-8081.